

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Withdrawn) A method for reinforcing the anticorrosion properties of a coating composition for metal parts containing a particulate metal, in aqueous or organic phase, which method comprises the step of adding at least one element selected from yttrium, zirconium, lanthanum, cerium, praseodymium and neodymium, in the form of oxides or salts, to the anticorrosion coating composition.
2. (Withdrawn) The method according to claim 1, wherein one of said elements is associated with molybdenum oxide MoO_3 .
3. (Withdrawn) The method according to claim 1, wherein the method reinforces the efficacy of the anticorrosion protection imparted by the particulate metal, the latter preferably being added to the composition in powder form of varying geometric structure, homogenous or heterogeneous, in particular of spherical, lamellar or lenticular structure.
4. (Withdrawn) The method according to claim 1, wherein said element is yttrium, preferably in the oxide form Y_2O_3 .
5. (Withdrawn) The method according to claim 4, wherein said yttrium oxide Y_2O_3 is used in the form of particulates having a size of between 1 μm and 40 μm with a D_{50} of less than 3 μm .
6. (Withdrawn) The method according to claim 1, wherein said element is cerium, preferably in the form of cerium chloride or in the oxide form CeO_2 .

7. (Withdrawn) The method according to claim 1, wherein said element is La_2O_3 , Pr_6O_{11} , Nd_2O_3 or ZrO_2 .

8. (Withdrawn) The method according to claim 2, wherein said molybdenum oxide MoO_3 is in an essentially pure orthorhombic crystalline form having a molybdenum content greater than approximately 60% by weight.

9. (Withdrawn) The method according to claim 2, wherein said molybdenum oxide MoO_3 is in the form of particles having a size of between 1 μm and 200 μm .

10. (Withdrawn) The method according to claim 2, wherein said element is associated with molybdenum oxide MoO_3 in a weight proportion of $0.25 < \text{element: MoO}_3 < 20$, preferably $0.5 < \text{element: MoO}_3 < 16$, further preferably $0.5 < \text{element: MoO}_3 < 14$.

11. (Currently Amended) An anticorrosion coating composition for metal parts, which composition contains:

at least one particulate metal;

a reinforcing agent for the anticorrosion properties of the composition selected from the group consisting of yttrium, zirconium, lanthanum, cerium, praseodymium and neodymium, in the form of oxides or salts;

a binder; and

either water optionally associated with one or more organic solvents, or one or more inter-miscible organic solvents.

12. (Previously Amended) The composition according to claim 11, wherein said reinforcing agent for the anticorrosion properties of the composition is associated with molybdenum oxide MoO_3 .

13. (Previously Amended) The composition according to claim 12, which composition contains 0.5% to 2% by weight molybdenum oxide MoO_3 .

14. (Currently Amended) The composition according to claim ~~13~~12, which composition contains 10% to 40% by weight of at least one particulate metal.

15. (Previously Amended) The composition according to claim 11, wherein the particulate metal is selected from the group consisting of zinc, aluminium, tin, manganese, nickel, their alloys, and their mixtures.

16. (Previously Amended) The composition according to claim 11, wherein the particulate metal is selected from the group consisting of zinc, aluminium, their alloys and their mixtures.

17. (Currently Amended) The composition according to claim 11, which composition contains 0.5 % to 10% by weight of said reinforcing agent for the anticorrosion properties of the composition, ~~preferably from 1% to 8% by weight, further preferably from 1 to 7% by weight,~~ relative to the weight of the composition.

18. (Currently Amended) The composition according to claim 11, wherein said reinforcing agent for the anticorrosion properties of the composition is yttrium, ~~preferably in the oxide form Y_2O_3 .~~

19. (Currently Amended) The composition according to claim 11, wherein said reinforcing agent for the anticorrosion properties of the composition is cerium, ~~preferably in the form of cerium chloride or in the oxide form CeO_2 .~~

20. (Previously Amended) The composition according to claim 11, wherein said reinforcing agent for the anticorrosion properties of the composition is selected from the group consisting of La_2O_3 , Pr_6O_{11} , Nd_2O_3 and ZrO_2 .

21. (Currently Amended) The composition according to claim 11 wherein said reinforcing agent for the anticorrosion properties of the composition is associated with molybdenum oxide MoO_3 in a weight proportion of $0.25 < \text{anticorrosion property reinforcing agent} : \text{MoO}_3 < 20$, preferably $0.5 < \text{anticorrosion property reinforcing agent} : \text{MoO}_3 < 16$, further preferably $0.5 < \text{anticorrosion property reinforcing agent} : \text{MoO}_3 < 14$.

22. (Previously Amended) The composition according to claim 11, which composition contains 3% to 20% by weight of an organic binder and/or mineral binder, in aqueous or organic phase.

23. (Currently Amended) The composition according to claim 11, wherein the binder is selected from the group consisting of an ~~alcoylated~~ alkoxylated silane, ~~optionally organofunctionalised~~, a silicone resin, a colloidal silica, a silicate of sodium and/or potassium and/or lithium, a zirconate, a titanate, an epoxy resin, a phenoxy resin, an acrylic and their mixtures, ~~optionally associated with a crosslinking agent of phenolic type or aminoplastic type.~~

24. (Currently Amended) The composition according to claim ~~23~~51, wherein the ~~binder is an~~ organofunctionalised silane ~~such as is~~ γ -glycidoxypropyl-trimethoxysilane and/or γ -glycidoxypropyltriethoxysilane.

25. (Currently Amended) The composition according to claim 11, which composition contains an organic solvent ~~chosen~~selected from the group consisting of ~~among~~ white spirits, alcohols, ketones, aromatic solvents, and glycol solvents, ~~such as glycol ethers, in particular diethyleneglycol, triethyleneglycol and dipropyleneglycol, acetates, polyethyleneglycol and nitropropane, and their mixtures.~~

26. (Previously Amended) The composition according to claim 11, which composition further contains up to 7% by weight of a thickening agent.

27. (Currently Amended) The composition according to claim 11, wherein said thickening agent is selected from the group consisting of cellulose derivatives, ~~such as hydroxymethyl cellulose, hydroxyethyl cellulose, hydroxypropyl cellulose or hydroxypropylmethyl cellulose,~~ xanthane gum, associative polyurethane thickeners of ~~polyurethane or acrylic thickener~~ type, silicas, silicates, ~~such as silicates of magnesium and/or lithium optionally treated,~~ or organophilic clays, and their mixtures.

28. (Previously Amended) The composition according to claim 11, which composition further contains a lubricating agent to obtain a self-lubricated system selected from the group consisting of polyethylene, polytetrafluoroethylene, MoS₂, graphite, polysulfones, synthetic or natural waxes and nitrides, and their mixtures.

29. (Previously Amended) The composition according to claim 11, which composition further contains an additive selected from the group consisting of an antifoam agent, a wetting agent, a surfactant and a biocide.

30. (Currently Amended) The composition according to claim 11, which composition contains:

10% to 40% by weight of at least one particulate metal;

0.5% to 10% of a reinforcing agent for the anticorrosion properties of the composition selected from the group consisting of yttrium, zirconium, lanthanum, cerium, praseodymium and neodymium, in the form of oxides or salts, optionally associated with molybdenum oxide MoO₃;

up to 7% by weight of a thickener;

3% to 20% by weight of a binder;

up to 3% by weight, ~~preferably between 0.05% and 2% by weight~~ of a sodium and/or potassium and/or lithium silicate;

up to 7% by weight of one or more lubricating agents;

1% to 30% by weight of an organic solvent or a mixture of organic solvents, and

water to make up to 100%.

31. (Currently Amended) The composition according to claim 30, which composition further contains 0.1% to 10% by weight of a weak mineral acid ~~such as boric acid~~.

32. (Previously Amended) The composition according to claim 30, which composition further contains 0.01% to 1% by weight of an anionic surfactant.

33. (Withdrawn) A metal substrate coated with an anticorrosion coating, which coating is established on said metal substrate by spraying, dip-draining or dip-centrifuging a layer of the composition of claim 11 on said metal substrate, and by baking said layer by convection or infrared for example, preferably at a temperature of between 79°C and 350°C, for approximately 10 to 60 minutes, by convection.

34. (Withdrawn) The coated metal substrate according to claim 33, wherein said layer is subjected to a drying operation, by convection or infrared for example, in particular by convection at a temperature in the region of 70°C for approximately 10 to 30 minutes on line prior to the baking operation.

35. (Withdrawn) The metal substrate according to claim 33, wherein said layer is applied to said metal substrate to be protected with a dry film thickness of between 3 μm (11 g/m^2) and 15 μm (55 g/m^2), preferably between 4 μm (15 g/m^2) and 10 μm (40 g/m^2), further preferably between 5 μm (18 m/g_2) and 10 μm (40 g/m^2).

36. Cancelled.

37. (Withdrawn) The metal substrate according to claim 33, wherein the anticorrosion coating is itself coated with another coating comprising an alkaline silicate, in particular a sodium and/or potassium and/or lithium silicate, an acrylic, a zirconate, a

titanate, a silane, an epoxy resin, a phenol resin or one of their mixtures, these resins optionally being associated with a colloidal silica.

38. (Withdrawn) The metal substrate according to claim 33, wherein the anticorrosion coating is itself coated with another coating comprising a lubricating agent chosen from among polyethylene, polytetrafluoroethylene, MoS_2 , graphite, polysulfones, synthetic or natural waxes and nitrides and their mixtures.

39. (New) The composition according to claim 17, which composition contains from 1% to 8% by weight of said reinforcing agent.

40. (New) The composition according to claim 39, which composition contains from 1% to 7% by weight of said reinforcing agent.

41. (New) The composition according to claim 18, wherein said reinforcing agent is yttrium in the oxide form Y_2O_3 .

42. (New) The composition according to claim 19, wherein said reinforcing agent is cerium in the form of cerium chloride.

43. (New) The composition according to claim 19, wherein said reinforcing agent is cerium in the oxide form CeO_2 .

44. (New) The composition according to claim 21, wherein said reinforcing agent is associated with molybdenum oxide MoO_3 in a weight proportion of $0.5 < \text{anticorrosion property reinforcing agent: MoO}_3 < 16$.

45. (New) The composition according to claim 44, wherein said reinforcing agent is associated with molybdenum oxide MoO_3 in a weight proportion of $0.5 < \text{anticorrosion property reinforcing agent: MoO}_3 < 14$.

46. (New) The composition according to claim 25, wherein the organic solvent includes glycol solvents.

47. (New) The composition according to claim 46, wherein the glycol solvents include glycol ethers.

48. (New) The composition according to claim 47, wherein the glycol ethers are selected from the group consisting of diethyleneglycol, triethyleneglycol, dipropyleneglycol, polyethyleneglycol, and their mixtures.

49. (New) The composition according to claim 30, wherein the composition contains between 0.05% and 2% by weight of a sodium and/or potassium and/or lithium silicate.

50. (New) The composition according to claim 23, wherein the binder is an alkoxyated silane.

51. (New) The composition according to claim 50, wherein the alkoxyated silane is organofunctionalised.

52. (New) The composition according to claim 23, wherein the binder is associated with a phenolic crosslinking agent or an aminoplastic crosslinking agent.

53. (New) The composition according to claim 27, wherein the thickener includes a cellulose derivative.

54. (New) The composition according to claim 53, wherein the cellulose derivative is selected from the group consisting of hydroxymethyl cellulose, hydroxyethyl cellulose, hydroxypropyl cellulose, hydroxypropylmethyl cellulose, and their mixtures.

55. (New) The composition according to claim 27, wherein the thickener includes silicates.

56. (New) The composition according to claim 55, wherein the silicates are selected from the group consisting of silicates of magnesium, silicates of lithium, and their mixtures.

57. (New) The composition according to claim 31, wherein the weak mineral acid is boric acid.